

Navy Advancement Center

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Advancement Handbook For UTILITIESMAN

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PREFACE

The purpose of the Advancement Handbook is to help you focus your preparation for Navywide advancement-in-rating examinations. The bibliographies (BIBs) together with this handbook form a comprehensive examination study package. Since this handbook provides skill and knowledge components for each paygrade of the Utilitiesman (UT) rating, it helps you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are cumulative; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the “*Exam Expectations*” section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

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THE UNITED STATES NAVY

GUARDIAN OF OUR COUNTRY

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends; the United States Navy exists to make it so.

WE SERVE WITH HONOR

Tradition, valor, and victory are the Navy's heritage from the past. To these may be added dedication, discipline, and vigilance as the watchwords of the present and the future.

At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

THE FUTURE OF THE NAVY

The Navy will always employ new weapons, new techniques, and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war.

Mobility, surprise, dispersal, and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past.

Never have our opportunities and our responsibilities been greater.

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Part 1

Advancement Handbook for UT3

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare time cards and sheets
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for preparing time cards and sheets.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Crewleader's Handbook
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for preparing time cards and sheets.

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General UT <i>Skill Area</i>	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain operator and equipment logs
<i>Knowledge</i> you should have to perform this skill:	<p>Recall requirements and procedures for maintaining operator and equipment logs to include the logs for the following:</p> <ul style="list-style-type: none"> • Boiler plant • Water treatment plant • Air-conditioning and refrigeration equipment
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Utilitiesman Basic, Volume 1, NAVEDTRA 11019
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for maintaining boiler plant operator logs, water treatment plant operator logs, and air-conditioning and refrigeration equipment logs.

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General UT <i>Skill Area</i>	Technical Administration
<i>A skill</i> you are expected to perform from the General Skill Area above:	Draw simple shop drawings/sketches and use simple diagrams and schematics in installation of utilities
<i>Knowledge</i> you should have to perform this skill:	<p>Identify the various types of construction drawings/sketches and recall how they are used in the installation of utilities.</p> <p>Interpret diagrams and common electrical symbols used in construction drawings.</p> <p>Recall the use of diagrams and schematics to include the reading of blueprints and project specifications.</p>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Blueprint Reading and Sketching, NAVEDTRA 12014
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on reading blueprints; identifying parts of a blueprint; reading parts of a project specification; identifying parts of construction drawings; differentiating between types of utilities diagrams; and identifying common utilities symbols.

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General UT <i>Skill Area</i>	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Use drawings to determine materials requirements and locate fixtures
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for preparing shop drawings and sketches and their use in determining material requirements and locating fixtures.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Blueprint Reading and Sketching, NAVEDTRA 12014, Chapters 2 and 7
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the preparation and use of shop drawings and sketches to determine material requirements and to locate fixtures.

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General UT <i>Skill Area</i>	Environmental Protection
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform hazardous material inventories
<i>Knowledge</i> you should have to perform this skill:	<p>Recall requirements and procedures for performing hazardous material inventories to include the following:</p> <ul style="list-style-type: none"> • Material Data Safety Sheet (MSDS) • Identification • Handling • Stowage • Labeling
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Basic Military Requirements, NAVEDTRA 12043 • Military Requirements for PO3, NAVEDTRA 12044
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about identifying hazardous materials; using Material Safety Data Sheets (MSDS); following basic procedures for handling hazardous materials; following proper stowage procedures; and identifying and placing placards and labels.

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General UT <i>Skill Area</i>	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare material for embarkation
<i>Knowledge</i> you should have to perform this skill:	<p>Recall requirements and procedures for preparing material for embarkation to include the following:</p> <ul style="list-style-type: none"> • Mount-out boxes • Tool kits • Materials from the Naval Construction Battalion's Table of Allowance (TOA)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Embarkation Manual, COMSECOND/COMTHIRDNCBINST 3122.1 series, Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect basic questions about preparing NMCB supplies for shipment on a ship or a plane. You can also expect questions on loading the right amount of weight on a cargo pallet.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform standard Naval Construction Force (NCF) hand signals used in equipment operations
<i>Knowledge</i> you should have to perform this skill:	Identify standard hand signals and recall their use in equipment operations.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Equipment Operator Basic, NAVEDTRA 12535• UT 3, NAVEDTRA 12532, Appendix III
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on identifying and giving hand signals during equipment operations.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Erect common types of construction scaffoldings and shorings
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for erecting common types of construction scaffoldings and shorings.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 4
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for erecting common types of construction scaffoldings and shorings.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform sampling and gauging of tanks
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing sampling and gauging of tanks.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 7• UT 3, NAVEDTRA 12532, Chapter 8
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about requirements and procedures for performing sampling and gauging of tanks.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Test, adjust and recalibrate gauges
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for testing, adjusting, and re-calibrating gauges.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapters 8 and 10
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about testing, adjusting, and recalibrating of gauges.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install pressure-reducing valves
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing pressure-reducing valves.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 4
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of pressure-reducing valves.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install shutoff valves (Blow down, main steam and shutoff)
<i>Knowledge</i> you should have to perform this skill:	<p>Recall requirements for and procedures for installing shutoff valves to include the following:</p> <ul style="list-style-type: none"> • Blow down • Main steam • Shut off
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 3, NAVEDTRA 12532, Chapter 8
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for installing shutoff valves to include blowdown, main steam and shutoff.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install forced/central air heating system duct work
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing forced/central air heating system ductwork.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 1• Blueprint Reading and Sketching, NAVEDTRA 12014
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the installation of forced/central air heating system ductwork.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install immersion can heaters and space heaters
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing immersion can heaters and space heaters.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 2 • UT 3, NAVEDTRA 12532, Chapter 9
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the installation of immersion can heaters and space heaters.

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General UT Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Install domestic hot water heaters
Knowledge you should have to perform this skill:	Recall requirements and procedures for installing domestic hot-water heaters.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the installation of domestic hot-water heaters.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair space heaters
<i>Knowledge</i> you should have to perform this skill:	Recall procedures for repairing space heaters.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for repairing space heaters.

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General UT Skill Area	Construction Operations
<i>A skill</i> you are expected to perform from the General Skill Area above:	Install compressed air systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing compressed air systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 5• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 6
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of compressed air systems.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install water distribution mains
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing water distribution mains.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 3, NAVEDTRA 12532, Chapter 3 • UT Basic, Volume 1, NAVEDTRA 11019, Chapters 3 and 4
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of water distribution mains.

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General UT <i>Skill Area</i>	Construction Operations
<i>A skill</i> you are expected to perform from the General Skill Area above:	Install hot and cold water distribution systems
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for the installation of hot- and cold-water distribution systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 3• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for installing hot- and cold-water distribution systems.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install drainage system rough-in piping
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing drainage system rough-in piping.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019 Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of drainage system rough-in piping.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install leaching fields
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for the installation of leaching fields.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019 Chapter 2• UT 3, NAVEDTRA 12532, Chapter 7
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for installing leach fields.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install prefabricated sewage system pump stations
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing prefabricated sewage system pump stations.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 6• UT 3, NAVEDTRA 12532, Chapter 5
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of prefabricated sewage system pump stations.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install fuel lines to equipment from supply tanks
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing fuel lines to equipment from supply tanks.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 2• UT 3, NAVEDTRA 12532, Chapter 7
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of fuel lines to equipment from supply tanks.

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General UT <i>Skill Area</i>	Construction Operations
<i>A skill</i> you are expected to perform from the General Skill Area above:	Install residential laundry washers and laundry dryers
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for installing residential laundry washers and laundry dryers.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for installation of laundry washers and laundry dryers.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install galley equipment
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for installing galley equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of galley equipment.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair, maintain, and operate field galley ranges
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for repairing, maintaining, and operating field galley ranges.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the repair, maintenance, and operation of field galley ranges.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install toilets (Flushometers / tank type)
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for installing toilets (Flushometers/tank type).
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 5 • UT 3, NAVEDTRA 12532, Chapters 2 and 4
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the installation of toilets (flushometers/tank type).

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install plumbing fixtures
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing plumbing fixtures.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 5 • UT 3, NAVEDTRA 12532, Chapter 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of plumbing fixtures.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install sewage systems
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for installing sewage systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019, Chapters 2 and 3• UT 3, NAVEDTRA 12532, Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of sewage systems.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install fire hydrants
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for installing fire hydrants.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA, 11019, Chapter 4• UT 3, NAVEDTRA 12532, Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of fire hydrants.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install water distribution systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing water distribution systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 4• UT 3, NAVEDTRA 12532, Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for the installation of water distribution systems.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install advanced based functional component (ABFC) assemblies
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the characteristics, uses, and procedures used in the erection of ABFC structures to include the following:</p> <ul style="list-style-type: none"> • Strong back tents • Seahuts • Field latrines • K-spans • Camps
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Facilities Planning Guide (all volumes), NAVFAC P-437
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for installation of ABFC assemblies.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Administer first aid under combat situations
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures to administer first aid to include the following:</p> <ul style="list-style-type: none"> • CPR • Shock • Abdominal thrust for choking • Hemorrhaging • Hot- and cold-weather injuries • Treatment of fractures • Burns
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about administering first aid under combat situations.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform ambush countermeasures
<i>Knowledge</i> you should have to perform this skill:	<p>Recall procedures for conducting ambush countermeasures to include the following:</p> <ul style="list-style-type: none"> • Near ambush • Far ambush • Defensive countermeasures • Evasion
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on performing ambush countermeasures; conducting drills; identifying the two types of ambushes and corresponding countermeasures; and determining the success of an ambush.

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General UT <i>Skill Area</i>	Construction Combat Readiness
<i>A skill</i> you are expected to perform from the General Skill Area above:	Perform survival, evasion, resistance and escape procedures
<i>Knowledge</i> you should have to perform this skill:	<p>Identify effective procedures for evasion, survival, resistance, and escape to include the following:</p> <ul style="list-style-type: none"> • Enemy avoidance • Concealment • Evasion travel • Individual and group survival • Water • Food • Plants • S-A-T (Save, Add to, Take care of)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You can expect questions about locating the enemy and evading the enemy; recognizing signs of movement; performing evasion techniques; using recommended survival techniques including: locating and preparing foods, water, and plants; performing S-A-T in escaping and surviving as a prisoner of war.</p>

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform prisoner of war (POW) handling procedures
<i>Knowledge</i> you should have to perform this skill:	<p>Recall POW handling procedures to include the following:</p> <ul style="list-style-type: none"> • Transportation • Search • Care and feeding • Treatment • Laws of conflict 6-S's (search, secure, silence, segregate, safeguard, and speed the prisoner to the rear)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about transporting, searching, caring for, and feeding prisoners. Additionally, you are asked questions about the laws of conflict concerning enemy POW's and the 6-S's.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install protective and tactical wire entanglements
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for use of wire entanglements to include the following: <ul style="list-style-type: none"> • Protective wire • Tactical wire • Supplemental wire
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about placing protective, tactical, and supplemental wire entanglements including: identifying the purpose of the type of wire; determining where and how to lay wire; identifying the tools and equipment needed; and identifying safety precautions when laying out wire entanglements.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform chemical, biological, and radiological (CBR) defensive measures
<i>Knowledge</i> you should have to perform this skill:	<p>Recall CBR defensive measures to include the following:</p> <ul style="list-style-type: none"> • Protective measures before, during, and after an attack • Protective equipment • Detection equipment • Decontamination equipment
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You can expect questions about identifying the different types of CBR agents; recognizing the effects; detecting and identifying symptoms of infection; conducting protective measures and using detection and decontamination equipment; performing first aid and self aid; using Mission-Oriented Protective Posture (MOPP) procedures; and marking contaminated areas.</p>

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of grenadier
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the duties of a grenadier to include the following:</p> <ul style="list-style-type: none"> • Characteristics of the M-203 • Ammunition of the M-203 • Safety precautions • Responsibilities of the grenadier
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on identifying the M-203 and its parts; identifying the correct ammunition to use; performing safety precautions; and performing the duties and responsibilities of the grenadier.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of a machine gun team gunner
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the duties of a machine gun team gunner to include the following:</p> <ul style="list-style-type: none"> • The three types of machine guns • Characteristics • Ammunition • Positioning • Safety precautions
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You can expect questions about identifying the general information on the M60, MK19 MOD3 40mm, and M2HB 50 cal; determining rates of fire, maximum ranges, collateral equipment, assembly and disassembly, types of ammunition; positioning the team for a defensive posture; and performing all safety precautions related to these weapons systems.</p>

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of antitank team gunner
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the duties of an antitank team gunner to include the following:</p> <ul style="list-style-type: none"> • Weapon system • Characteristics • Positioning • Safety precautions
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about identifying characteristics of the 84mm AT4; performing sighting, controls, operations, target engagement and firing positions; and performing all safety precautions and misfire procedures.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of fire team automatic rifleman
<i>Knowledge</i> you should have to perform this skill:	<p>Identify the duties and responsibilities of the automatic rifleman to include the following:</p> <ul style="list-style-type: none"> • Fire team movement • Communications • Weapon use
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on performing the duties and responsibilities of an automatic rifleman; controlling movement; establishing communications; and using recommended procedures with the weapon.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform land-based combat duties under CBR conditions
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the different CBR conditions.</p> <ul style="list-style-type: none"> • Mission-oriented protective posture (MOPP) levels • Effectiveness
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different MOPP levels and authorizations, wear and care of the permeable protective clothing and mask, personal decontamination, chemical and radiological detection devices, and contamination markers.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Place trip flares and other warning devices
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures for effectively placing trip flares to include the following:</p> <ul style="list-style-type: none"> • Types of trip flares • Proper use of flares • Nomenclature of flare and fuse • Strategic locations • Safety precautions
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on identifying the purpose of the flares; recognizing nomenclatures; determining effective placement and tripping of the flare; and using safety precautions.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform booby trap countermeasures
<i>Knowledge</i> you should have to perform this skill:	Recall types of booby traps and the countermeasures for each.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different explosive and nonexplosive types of booby traps, and the identification, location, and countermeasures for the safe movement of personnel and equipment.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Transport personnel injured in combat
<i>Knowledge</i> you should have to perform this skill:	Recall the procedures for transportation of a casualty to include the following: <ul style="list-style-type: none">• Types of litters• Man carries
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on transporting a casualty using various types of litters; and performing the proper techniques and methods for man carries.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform minor repairs on tactical field telephones
<i>Knowledge</i> you should have to perform this skill:	Recall the procedures for minor repair on tactical telephones to include the following: <ul style="list-style-type: none">• TA-312/PT telephone• TA-1/PT telephone• SB-22/PT telephone switchboard
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on performing minor repairs on field telephones and communication systems; identifying equipment nomenclatures; splicing cable; and determining DC power requirements.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties as Fire Direction Control (FDC) plotter
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures for plotting targets on the M17 plotting board to include the following:</p> <ul style="list-style-type: none"> • Components of the board • Compute range and distance from the mortar position to the target
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about using the M17 plotting board; plotting targets on the firing chart; computing range and distance; and using the correct procedures for preparing firing data.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties as a mortar platoon gunner for the M224 60mm mortar
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures for use of the M224 mortar to include the following:</p> <ul style="list-style-type: none"> • Setting up • Sighting • Loading and firing • Handling misfires
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You can expect questions about the M224 60mm mortar to include the different assemblies and components; the different firing modes; the types of ammunition and their uses; preparing ammunition for firing; fire commands; the methods for laying in mortars; the reasons for misfires and procedures for dislodging and disposing of the round; and the procedure for cleaning the mortar after firing.</p>

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform field sanitation procedures
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for field sanitation to include the following: <ul style="list-style-type: none"> • Latrines • Garbage disposal • Cold climates • Water treatment • Immersion heaters
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures for installing various types of latrines; disposing of garbage; identifying the types of sewage and garbage disposal methods in cold climates; purifying water; and using immersion heaters.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform pre-start checks on boiler equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing prestart checks on boiler equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 8
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for performing prestart checks on boiler equipment.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform operational tests on boilers
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing operational tests on boilers.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 8
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for performing operational tests on boilers.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform operational tests on pressure vessels
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing operational tests on pressure vessels.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 8
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for performing operational tests on pressure vessels.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair valves (blowdown, main steam and shutoff)
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing various valves (blowdown, main steam and shutoff).
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 8
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for performing repairs on various valves (blowdown, main steam and shutoff).

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General UT <i>Skill Area</i>	Boiler Maintenance
<i>A skill</i> you are expected to perform from the General Skill Area above:	Perform chemical tests and treatment of boilerwater/feedwater
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for Performing chemical tests and treatment of boilerwater/feedwater.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 8• Boiler Care Handbook, Clever Brooks, Division of Aqua-Clean Inc.
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for performing chemical tests and treatment of boilerwater/feedwater.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Clean Boiler waterside tubes
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for cleaning boiler waterside tubes.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 8
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for performing chemical and mechanical cleaning of boiler waterside tubes.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Clean boiler fireside tubes
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for cleaning boiler fireside tubes.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 3, NAVEDTRA 12532, Chapter 8
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for performing mechanical cleaning of boiler fireside tubes.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Remove and replace defective boiler tubes
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for removing and replacing defective boiler tubes.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> Boiler Care Handbook, Clever Brooks Division of Aqua-Clem Inc.
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on performing removal and replacement of defective boiler tubes.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain boiler feed pumps
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for maintaining boiler feed pumps.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">Boiler Care Handbook, Clever Brooks Division of Aqua-Clem Inc.
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing maintenance on boiler feed pumps.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Replace gage glasses on boilers
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for removing and replacing gauge glasses on boilers.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boiler Care Handbook, Clever Brooks Division of Aqua-Clem Inc.
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing removal and replacement of gauge glasses on boilers.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Remove and replace boiler refractories
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for removing and replacing boiler refractories.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> Boiler Care Handbook, Clever Brooks Division of Aqua-Clem Inc.
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing removal and replacement of boiler refractories.

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General UT <i>Skill Area</i>	Boiler Maintenance
<i>A skill</i> you are expected to perform from the General Skill Area above:	Perform operator maintenance on boiler equipment and steam plants
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing operational maintenance on boiler equipment and steam plants.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boiler Care Handbook, Clever Brooks Division of Aqua-Clem Inc.
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing operational maintenance on boiler equipment and steam plants.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair boiler refractories
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing boiler refractories.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> Boiler Care Handbook, Clever Brooks Division of Aqua-Clem Inc.
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing repairs on boiler refractories.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Store boiler fuel oil
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for storing boiler fuel oil.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boiler Care Handbook, Clever Brooks Division of Aqua-Clem Inc.
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about storing boiler fuel oil.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair and inspect gun burners
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing and inspecting gun burners.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Boiler Care Handbook, Clever Brooks Division of Aqua-Clem Inc.• Engineering Aid Basic, NAVEDTRA 10696-A
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing repairs and inspections to gun burners.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform preventive maintenance on immersion cans and space heaters
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing preventive maintenance on immersion cans and space heaters.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • EA Basic, NAVEDTRA 10696-A • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing preventive maintenance on immersion cans and space heaters.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect and clean heating units
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for inspecting and cleaning heating units.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• EA Basic, NAVEDTRA 10696-A• UT Basic, Volume 1, NAVEDTRA 11019, Chapter 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing inspections and cleaning of heating units.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Change and gap electrodes on heating systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for changing and gapping electrodes on heating systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019• EA Basic, NAVEDTRA 10696-A
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing changes and gapping of electrodes on heating systems.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair immersion can heaters
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing immersion can heaters.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • EA Basic, NAVEDTRA 10696-A • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing repairs to immersion can heaters.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform operator's maintenance on air conditioning and refrigeration (AC/R) equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing operator's maintenance on air conditioning and refrigeration (AC/R) equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • EA Basic, NAVEDTRA 10696-A • UT 3, NAVEDTRA 12532, Chapter 10
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing operator's maintenance on air conditioning and refrigeration (AC/R) equipment.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install insulating material on air conditioning systems and pressure vessels
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing operator's maintenance on air conditioning and refrigeration (AC/R) equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• EA Basic, NAVEDTRA 10696-A• UT 3, NAVEDTRA 12532, Chapter 10
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing operator's maintenance on air conditioning and refrigeration (AC/R) equipment.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect, remove and replace fuel and air filters
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing inspections, removals, and replacements of fuel and air filters.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• EA Basic, NAVEDTRA 10696-A• UT 3, NAVEDTRA 12532, Chapter 10
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing inspections, removals, and replacements of fuel and air filters.

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General UT <i>Skill Area</i>	Pumps and air compressors maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain pumps
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing maintenance on pumps and air compressors.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 6 • UT 3, NAVEDTRA 12532, Chapter 5
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing maintenance on pumps and air compressors.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Make minor repairs on piping systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing minor repairs on piping systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing minor repairs on piping systems.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Check piping systems for leaks
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing leak checks on piping systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing leak checks on piping systems.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install insulating material on piping systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for installing insulating material on piping systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for installing insulating material on piping systems.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Solder soft copper tubing and fittings
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for soldering soft copper tubing and associated fittings.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Basic, Volume 1, NAVEDTRA 11019• UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about soldering soft copper tubing and associated fittings.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Silver solder hard copper tubing / piping and fittings
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for silver soldering hard copper tubing/piping and associated fittings.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about silver soldering hard copper tubing/piping and associated fittings.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Measure, cut, thread and join galvanized steel piping
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for measuring, cutting, threading, and joining galvanized steel piping.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing measurements, cuts, threads, and joining galvanized steel piping.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Measure and cut cast-iron soil pipes
<i>Knowledge</i> you should have to perform this skill:	Recall procedures for measuring and cutting cast-iron soil piping.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing measurements and cuts on cast-iron soil piping.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Join cast-iron soil pipe with lead
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for joining cast-iron soil piping with lead.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing joints to cast-iron soil piping with lead.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Join cast-iron soil pipe with no hub couplings
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for joining cast-iron soil piping with no hub couplings.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing joints to cast-iron soil piping with no hub couplings.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Join cast-iron water pipe with flanged fittings
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for joining cast-iron soil piping with flanged fittings.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about joining joints to cast-iron soil piping with flanged fittings.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Measure and cut vitrified clay pipe
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for measuring and cutting vitrified clay pipe.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing measurements and cuts to vitrified clay piping.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Join vitrified clay pipe with “O” ring seals
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for joining vitrified clay pipe with “O” ring seals.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about joining joints to vitrified clay pipe with “O” ring seals.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Join vitrified clay pipe with mortar
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for joining vitrified clay pipe with mortar.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about joining joints to vitrified clay pipe with mortar.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Measure and cut concrete pipe
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for measuring and cutting concrete pipe.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing measurements and cuts to concrete pipe.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Join concrete pipe with mortar
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for joining concrete pipe with mortar.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing joints to concrete pipe with mortar.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Join concrete pipe with “O” ring seals
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for joining concrete pipe with “O” ring seals.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing joints to concrete pipe with “O” ring seals.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Measure, cut and join polyvinyl chloride (PVC) pipe
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for measuring, cutting, and joining polyvinyl chloride (PVC) pipe.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing measurements, cuts, and joints to polyvinyl chloride (PVC) pipe.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Select pipe or tubing and fittings by size and usage
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for selecting pipe/tubing and associated fittings by size and usage.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing selection of pipe/tubing and associated fittings by sizes and their usage.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain galley equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for maintaining galley equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing maintenance on galley equipment.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain laundry equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for maintaining laundry equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing maintenance on laundry equipment.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Operate methyl-acetylene propane (MAPP) equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for operating methyl-acetylene propane (MAPP) equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing operations with methyl-acetylene propane (MAPP) equipment.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Plumbing
A <i>skill</i> you are expected to perform from the General Skill Area above:	Flush firemain systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for flushing firemain systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing flushes to firemain systems.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Corrosion Control / Material Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Check piping systems for corrosion
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for checking piping systems for corrosion.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing checks to piping systems for corrosion.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Corrosion Control/Material Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Preserve piping systems by painting
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for preserving piping systems by painting techniques.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing painting preservation techniques on piping systems.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform field sanitation procedures
<i>Knowledge</i> you should have to perform this skill:	Recall Utilitiesman requirements for performing field sanitation.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 2 • UT 3, NAVEDTRA 12532, Chapter 7
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about requirements and procedures for accomplishing effective field sanitation.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform operator's maintenance on water plants
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing operational maintenance on water plants.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 7 • UT 3, NAVEDTRA 12532, Chapter 6
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing operational maintenance on water plants.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Treat water treatment plant potable water
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for treating potable water at a water treatment plant.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 • UT 3, NAVEDTRA 12532, Chapter 6
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about treatment of water treatment plant potable water.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Clean water treatment plant filtration equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for cleaning filtration equipment at a water treatment plant.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapter 7 • UT 3, NAVEDTRA 12532, Chapter 6
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing cleaning water treatment plant filtration equipment.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform water purification tests (chlorine, pH, salinity and hardness)
<i>Knowledge</i> you should have to perform this skill:	<p>Recall requirements and procedures for performing water purification tests to include the following:</p> <ul style="list-style-type: none"> • Chlorine • PH • Salinity • Hardness
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019 Chapter 7 • UT 3, NAVEDTRA 12532, Chapter 6
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing water purification tests to include chlorine, pH, salinity, and hardness.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare chemicals used in testing water and sewage as approved by state law
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for preparing chemicals used on testing water and sewage under state law.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapters 5, 7, and 8 • UT 3, NAVEDTRA 12532, Chapters 3 and 6
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing preparation of chemicals for use in testing water and sewage as approved by state law.

Advancement Handbook for UT3

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Flush sanitation sewer systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing flushes to sanitation sewer systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Basic, Volume 1, NAVEDTRA 11019, Chapters 2 and 3 • UT 3, NAVEDTRA 12532, Chapters 6 and 7
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing flushing procedures to sanitation sewer systems.

Part 2

Advancement Handbook for UT2

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Provide material usage data
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the requirements and procedures for providing material usage data to include the following:</p> <ul style="list-style-type: none"> • Material liaison office (MLO) • Project status reports/project control reports (PSR/PCR)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Naval Construction Force Manual, NAVFAC P-315, Chapter 7
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures used to organize usage data and control deployment of materials utilizing the MLO staff, and PSRs/PCRs.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare shop drawings and sketches
<i>Knowledge</i> you should have to perform this skill:	<p>Recall requirements and procedures for the preparation of drawings to include the following:</p> <ul style="list-style-type: none"> • Shop drawings and sketches • As built
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Crewleader's Handbook, Chapter 13
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements for and methods of producing shop drawings and as-built drawings.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Technical Administration
<i>A skill</i> you are expected to perform from the General Skill Area above:	Use construction drawings and specifications in the installation of utilities
<i>Knowledge</i> you should have to perform this skill:	<p>Identify and use different types of drawings and specifications to include the following:</p> <ul style="list-style-type: none"> • Construction drawings • Shop drawings • Sketches • NAVFAC specifications • NAVFACENGCOM specifications • EFD Regional Guide specifications • Standard specifications • Specification organization
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Engineering Aid Basic, NAVEDTRA 10696-A
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You can expect questions about different types of drawings, parts of each drawing (site plan, plot plan, foundation plan, floor plan, elevations, framing plans, etc.), different specifications used in the NCF, and organization of the specifications.</p>

Advancement Handbook for UT2

General UT Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Perform precedence diagramming
Knowledge you should have to perform this skill:	Recall the procedures for performing precedence diagramming to include elements required for planning, managing, executing, and monitoring a construction project.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Crewleader's Handbook
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for performing a precedence diagram.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Environmental Protection
A <i>skill</i> you are expected to perform from the General Skill Area above:	Update and maintain safety data sheet files
<i>Knowledge</i> you should have to perform this skill:	Identify hazardous material (HAZMAT) storage requirements to include the following: <ul style="list-style-type: none">• Material Safety Data Sheet (MSDS)• Hazardous material identification and labeling
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Military Requirements for PO3, NAVEDTRA 12044, Chapter 7
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about hazardous material storage, handling, MSDSs, and HAZMAT identification and labeling.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Environmental Protection
A <i>skill</i> you are expected to perform from the General Skill Area above:	Make mechanical adjustments to a fuel-air ratio unit to control air pollution
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for making mechanical adjustments to a fuel-air ratio unit.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 2, NAVEDTRA 10662, Chapters 8 and 9
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for making mechanical adjustments to a fuel-air ratio unit to control air pollution.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Environmental Protection
A <i>skill</i> you are expected to perform from the General Skill Area above:	Make electrical adjustments to burners to control air pollution
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for making electrical adjustments to burners to control air pollution.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapters 8 and 9
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for making electrical adjustments to burners to control air pollution.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install gas and oil lines to forced/central heating systems
<i>Knowledge</i> you should have to perform this skill:	<p>Recall requirements and procedures for installing to forced/central heating systems to include the following:</p> <ul style="list-style-type: none"> • Oil lines • Gas lines
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 9
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for installation of oil and gas lines to forced/central heating systems.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install forced air/heating systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures to install forced air/heating systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 9
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for installation of forced air/central systems.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install and mount furnaces
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures to install and mount furnaces.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 2, NAVEDTRA 10662, Chapter 9
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for installation and mounting of furnaces.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install air conditioning and refrigeration package units
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures to install air conditioning and refrigeration package units.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 13
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for installation of air conditioning and refrigeration package units.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install septic tanks
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures to install septic tanks.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 3, NAVEDTRA 12532, Chapter 7
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for installation of septic tanks.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Shore excavations
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures to install shoring for excavations.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for installation of shoring for excavations.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct and coordinate installation of advanced based functional component (ABFC) assemblies
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the characteristics, uses, and procedures used in the erection of ABFC structures to include the following:</p> <ul style="list-style-type: none"> • Strong back tents • Seahuts • Field latrines • K-spans • Camps
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Facilities Planning Guide (all volumes), NAVFAC P-437
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for directing and coordinating installation of ABFC assemblies.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform major repairs on boilers and pressure vessels
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures to perform major repairs on boilers and pressure vessels.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Cleaver-Brooks Operation, Service, and Parts Manual, Nos. 750-90 and 750-91, Cleaver-Brooks Division of Aqua-Chem Inc.
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for performing major repairs on boilers and pressure vessels.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout water distribution systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures to layout water distribution systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 2, NAVEDTRA 10662, Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for performing layout of water distribution systems.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout septic systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures to perform layout of septic systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for performing layout of septic systems.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maneuver fire team using arm and hand signals
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures to maneuver fire teams using arm and hand signals to include the following:</p> <ul style="list-style-type: none"> • Speed • Direction • Enemy in sight • Assemble • Column • Echelons • Wedge • Vee • Fire team • Open • Close • Rally point • Objective rally point
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about maneuvering fire teams using arm and hand signals and fire team positions.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct patrols
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures used to conduct patrols to include the following:</p> <ul style="list-style-type: none"> • Planning and preparation • Classification • Mission • Size • Formation • Control • Security • Movement • Execution of mission
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to conduct patrols to include: planning and preparation, patrol classification, mission, size, formation, control, security, movement, and execution of mission (before, during, and after).

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of fire team leader
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the duties and responsibilities of a fire team leader to include the following:</p> <ul style="list-style-type: none"> • Mission • Defensive position • Fire plans • Movement • Formation
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003 • Seabee Combat Handbook, Volume 2, NAVEDTRA 12004
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties of a fire team leader, the mission, positioning of a fire team on the FLOT, fire plans, movements, and formations.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of machine gun team leader
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the duties and responsibilities of a machine gun team leader to include the following:</p> <ul style="list-style-type: none"> • Weapon characteristics • Weapon placement • Fire plan • Fire command • Fire control • Fire discipline • Fire distribution • Fire technique • Team member responsibility
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing the duties and responsibilities of a machine gun team leader on the characteristics and placement of the weapon, fire plans, fire commands, fire control, fire discipline, fire distribution, fire technique, and the responsibility of each member of the fire team.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of antitank team leader
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the duties and responsibilities of an antitank team leader to include the following:</p> <ul style="list-style-type: none"> • Weapon characteristics • Employment • Operation • Safety
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003 • Seabee Combat Handbook, Volume 2, NAVEDTRA 12004
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of an antitank team leader, weapon characteristics, employment and operation of the weapon, and weapon safety.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Employ claymore mines
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures used for employment of the M18A1 claymore mine to include the following:</p> <ul style="list-style-type: none"> • Countermeasures • Coverage and methods of fire • Firing device • Installation and firing
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about employment of the M18A1 claymore mine, its nomenclature, countermeasures, coverage and methods of fire, firing device, and installation and firing.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Position perimeter guards
<i>Knowledge</i> you should have to perform this skill:	Recall rules and requirements for the positioning of perimeter guards.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the rules and requirements for the positioning of perimeter guards.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Lay out protective and tactical wire entanglements
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the requirements and procedures used in placing protective and tactical wire entanglements to include the following:</p> <ul style="list-style-type: none"> • Supplementary • Depth • Effectiveness • Uses • Barbed wire • Concertina fencing • Barbed steel tape • Placement
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures used in placing protective and tactical wire entanglements, supplementary wire, depth, effectiveness, uses, and different wire used, such as placing barbed wire, concertina wire, and barbed steel tape.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Lay out trip flares and other warning devices
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the requirements and procedures for the setting of trip flares and warning devices to include the following:</p> <ul style="list-style-type: none"> • Purpose • Location • Explosive devices • Nonexplosive devices • Countermeasures
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about trip flares and warning devices, their uses, location, explosive and nonexplosive devices, and countermeasures.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of mortar crew leader/gunner
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the duties and responsibilities of mortar crew leader and gunner to include the following:</p> <ul style="list-style-type: none"> • Description and characteristics of the 60mm mortar • Assemblies and components • Ammunition • Equipment • Positioning • Preparation for firing • Sighting • Loading and firing • Safety
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of a mortar crew leader or gunner, description and characteristics of the weapon, assemblies and components, ammunition, equipment, positioning, preparation for firing, sighting, loading and firing, and safety.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair boiler feed pumps
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing boiler feed pumps.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Maintenance of Steam, Hot Water and Compressed Air Distribution, NAVFAC MO-209• Central Boiler Plant, TM-5-650
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing repairs to boiler feed pumps.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect boiler refractories
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for inspecting boiler refractories.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 8 • Inspection and Certification of Boilers and Unfired Pressure Vessels, NAVFAC MO-324
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing inspections to boiler refractories.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair pressure reducing valves
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing boiler pressure reducing valves.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Maintenance of Steam, Hot Water and Compressed Air Distribution, NAVFAC MO-209• Central Boiler Plant, TM-5-650
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing repairs to boiler pressure reducing valves.

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General UT <i>Skill Area</i>	Boiler Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect waterside access plates for damage
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for inspecting waterside access plates for damage.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Inspection and Certification of Boilers and Unfired Pressure Vessels, NAVFAC MO-324 • Maintenance of Steam, Hot Water and Compressed Air Distribution, NAVFAC MO-209 • Central Boiler Plant, TM-5-650
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing inspections on waterside access plates for damage.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Test automotive and construction equipment air conditioning/refrigeration (AC/R) systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for testing automotive and construction equipment AC/R systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 14
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing tests on automotive and construction equipment AC/R systems.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Evacuate automotive and construction equipment air conditioning equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for evacuating automotive and construction equipment AC/R systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 13
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing evacuations on automotive and construction equipment AC/R systems.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Charge AC/R systems on construction equipment systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for charging AC/R systems on construction equipment systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 13
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for charging AC/R systems on construction equipment systems.

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General UT <i>Skill Area</i>	Heating, Air Conditioning and Refrigeration Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform mechanical adjustment on heating systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing mechanical adjustments on heating systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapters 9 and 10
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing mechanical adjustments on heating systems.

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General UT <i>Skill Area</i>	Pumps and Air Compressors Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair pumps except deep well pumps
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing repairs on pumps except deep well pumps.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 4
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing repairs on pumps except deep well pumps.

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General UT <i>Skill Area</i>	Pumps and Air Compressors Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair deep well pumps
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing repairs to deep well pumps.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing repairs to deep well pumps.

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General UT <i>Skill Area</i>	Pumps and Air Compressors Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair water treatment equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing water treatment equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing repairs on water treatment equipment.

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General UT <i>Skill Area</i>	Pumps and Air Compressors Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair water purification equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing water purification equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 4
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing repairs to water purification equipment.

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General UT <i>Skill Area</i>	Pumps and Air Compressors Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain water purification equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for maintaining water purification equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing maintenance on water purification equipment.

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General UT <i>Skill Area</i>	Pumps and Air Compressors Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair air compressors
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing repair to air compressors.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for repairing air compressors.

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General UT <i>Skill Area</i>	Plumbing Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Test piping systems and interpret results (Hydrostatic Test)
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for hydrostatic testing piping systems and interpreting results.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 3
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing a hydrostatic test on piping systems and interpreting the results of the test.

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General UT <i>Skill Area</i>	Plumbing Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect and repair steam traps
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing inspections and repairs to steam traps.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing inspections and repairs to steam traps.

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General UT <i>Skill Area</i>	Plumbing Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair galley equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing repairs to galley equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 11
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing repairs to galley equipment.

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General UT <i>Skill Area</i>	Plumbing Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair laundry equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing repairs to laundry equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662, Chapter 12
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing repairs to laundry equipment.

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General UT <i>Skill Area</i>	Plumbing Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Operate air/oxygen acetylene equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for operating air/oxygen acetylene equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for operating air/oxygen acetylene equipment.

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General UT <i>Skill Area</i>	Plumbing Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair and install fire protection sprinkler systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing and installing fire protection sprinkler systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for repairing and installing fire protection sprinkler systems.

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General UT <i>Skill Area</i>	Plumbing Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Flush fire protection sprinkler systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for flushing fire protection sprinkler systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for flushing fire protection sprinkler systems.

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General UT <i>Skill Area</i>	Electrical Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Read schematics on electrical equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for reading schematics on electrical equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for reading schematics on electrical equipment.

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General UT <i>Skill Area</i>	Electrical Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Test electrical components on AC/R equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for testing electrical components on AC/R equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for testing electrical components on AC/R equipment.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Electrical Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Adjust timing relays on environmental/refrigeration systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for adjusting timing relays on environmental/refrigeration systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for adjusting timing relays on environmental/refrigeration systems.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Electrical Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain automatic controls for air conditioning equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for maintaining automatic controls for air conditioning equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for maintaining automatic controls for air conditioning equipment.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Electrical Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform electrical tests on heating systems
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing electrical tests on heating systems.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing electrical tests on heating systems.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Electrical Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair electrical problems on boiler equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for repairing electrical problems on boiler equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for repairing electrical problems on boiler equipment.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Set up and operate water purification equipment
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for setting up and operating water purification equipment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for setting up and operating water purification equipment.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Interpret water purification test results
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for interpreting the results of a water purification test.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for interpreting the results gained from a water purification test.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Construct various types of field sanitation facilities
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for constructing various types of field sanitation facilities.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for constructing various types of field sanitation facilities.

Advancement Handbook for UT2

General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform soil-leaching tests
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing soil-leaching tests.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing soil-leaching tests.

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General UT <i>Skill Area</i>	Habitability/Sanitation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Test sanitation sewer system for flow and/or flow restrictions
<i>Knowledge</i> you should have to perform this skill:	Recall requirements and procedures for performing tests on sanitation sewer systems for flow and/or flow restrictions.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 2, NAVEDTRA 10662
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing tests on sanitation sewer systems for flow and/or flow restrictions.

Part 3

Advancement Handbook for UT1

Advancement Handbook for UT1

General UT Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Prepare redline drawings field adjustment requests (FAR)
Knowledge you should have to perform this skill:	<p>Recall the procedures used to initiate FARs and redline construction drawings to include the following:</p> <ul style="list-style-type: none">• Preparing a FAR• Logging and routing FARs• Redlining drawings
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Crewleader's Handbook, Chapter 13• Engineering Aid Basic, NAVEDTRA 10696-A, Chapter 10
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to prepare FARs and redline construction drawings.

Advancement Handbook for UT1

General UT Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Prepare work requests and job orders
Knowledge you should have to perform this skill:	Recall requirements and procedures for preparing work requests and job orders.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12534, Chapter 9
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for preparing work requests and job orders.

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General UT Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Conduct personnel readiness capability program (PRCP) interviews
Knowledge you should have to perform this skill:	<p>Recall procedures for conducting PRCP interviews to include the following:</p> <ul style="list-style-type: none"> • Skill inventory • Skill definitions • Task analysis • Standard and guides (PRCP and individual) • Interview type
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about conducting PRCP interviews using skill inventories, skill definitions, task analysis, standard and guides, and knowing the difference between the types of interviews.

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General UT Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Direct job site storage of building materials and equipment
Knowledge you should have to perform this skill:	Recall the requirements and procedures for direct site storage of building materials and equipment.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Crewleader's Handbook• NCF/Seabee 1 & C, NAVEDTRA 12534, Chapter 3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for direct site storage of building materials and equipment.

Advancement Handbook for UT1

General UT Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Direct the operation of steam plants
Knowledge you should have to perform this skill:	Recall the management requirements and rules for directing the operation of steam plants.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• NCF/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for directing the operation of steam plants.

Advancement Handbook for UT1

General UT Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Direct the operation of air conditioning and refrigeration (AC/R) plants
Knowledge you should have to perform this skill:	Recall the requirements and procedures for directing the operation of AC/R plants.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Advanced, NAVEDTRA 12534, Chapter 14
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for directing the operation of AC/R plants.

Advancement Handbook for UT1

General UT Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Direct the operation of water distribution systems
Knowledge you should have to perform this skill:	Recall the requirements and rules for directing the operation of water distribution systems.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Maintenance Management for Naval Construction Force Camps, COMCBPAC/LANTINST 5200.2 series
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and rules for directing the operation of water distribution systems.

Advancement Handbook for UT1

General UT Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Direct steam plant maintenance programs
Knowledge you should have to perform this skill:	Recall the requirements and rules for directing steam plant maintenance programs.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Maintenance Management for Naval Construction Force Camps, COMCBPAC/LANTINST 5200.2 series
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and rules for directing steam plant maintenance programs.

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General UT Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Monitor compliance with yearly steam testing certification
Knowledge you should have to perform this skill:	Recall the requirements and procedures for monitoring compliance with yearly steam testing certification.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Inspection of Shore Facilities, NAVFAC MO-322
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for monitoring compliance with yearly steam testing certification.

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General UT Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Direct the operation of water wells
Knowledge you should have to perform this skill:	Recall the requirements and rules for directing the operation of water wells.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and rules for directing the operation of water wells.

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General UT Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Review equipment requirements at project level
Knowledge you should have to perform this skill:	Recall the procedures for reviewing equipment requirements at project level.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• NCF/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for reviewing equipment requirements at project level.

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General UT Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Coordinate battalion project turnover
Knowledge you should have to perform this skill:	Recall the requirements and procedures for coordinating battalion project turnover.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• NCF/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for coordinating battalion project turnover.

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General UT Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Administer naval construction force tool kit inventory and inspection program
Knowledge you should have to perform this skill:	Recall the requirements and procedures for administrating naval construction force tool kit inventory and inspection program.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for administering Naval Construction Force tool kit inventory and inspection program.

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General UT Skill Area	Environmental Protection
A skill you are expected to perform from the General Skill Area above:	Control environmental pollution at naval construction forces/public works (NCF/PW) construction site work areas and shops
Knowledge you should have to perform this skill:	Recall the requirements and procedures for controlling environmental pollution at NCF/PW construction site work areas and shops.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• NCF/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about controlling environmental pollution at (NCF/PW) construction site work areas and shops.

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General UT Skill Area	Environmental Protection
A skill you are expected to perform from the General Skill Area above:	Monitor environmental protection programs for compliance
Knowledge you should have to perform this skill:	<p>Recall the requirements and procedures for evaluating environmental protection programs for compliance to include the following:</p> <ul style="list-style-type: none"> • Environmental pollution • Water pollution • Ground pollution • Air pollution • Solid waste • Pollution impact areas
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about environmental protection programs, compliance requirements, and procedures.

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General UT Skill Area	Environmental Protection
A skill you are expected to perform from the General Skill Area above:	Contain the effects of oil and fuel spillage
Knowledge you should have to perform this skill:	Recall the requirements and procedures for containing the effects of oil and fuel spillage.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• NCF/Seabee 1 & C, NAVEDTRA 12543• Oil Spill Control for Inland Waters and Harbors, NAVFAC P-908
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about containment of oil and fuel spillage.

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General UT Skill Area	Environmental Protection
A skill you are expected to perform from the General Skill Area above:	Locate construction sites for cesspools
Knowledge you should have to perform this skill:	Recall the requirements and procedures for locating construction sites for cesspools.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• NCF/Seabee 1 & C, NAVEDTRA 12543• Environmental and Natural Resources Protection Manual, OPNAVINST 5090.1 series
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for locating construction sites for cesspools.

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General UT Skill Area	Construction Support
A skill you are expected to perform from the General Skill Area above:	Perform facilities/maintenance inspections
Knowledge you should have to perform this skill:	<p>Identify inspection requirements, defects and findings associated with maintenance inspections of naval facilities and structures to include the following:</p> <ul style="list-style-type: none"> • Foundations • Basic supporting members • Floors and stairs • Exterior walls • Interior walls and partitions • Ceilings • Roofs • Waterfront structures • Concrete structures • Steel structures • Wood structures • Stone, masonry, and earth structures
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF /Seabee 1 & C, NAVEDTRA 12543 • Inspection of Shore Facilities, NAVFAC MO-322
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about facility inspection requirements and about identifying defects and damages associated with the maintenance inspection and of facilities.

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General UT Skill Area	Construction Support
A skill you are expected to perform from the General Skill Area above:	Prepare and perform construction network analysis
Knowledge you should have to perform this skill:	<p>Recall the procedures for performing network analysis to include the following:</p> <ul style="list-style-type: none"> • Activities • Time • Forward and backward pass • Total float • Free float • Lead and lag time • Critical path • Logic types • Resource leveling
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures for conducting a construction network analysis.

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General UT Skill Area	Construction Support
A skill you are expected to perform from the General Skill Area above:	Perform maintenance of air conditioning and refrigeration (AC/R) systems
Knowledge you should have to perform this skill:	Recall the requirements and procedures for performing maintenance on air conditioning and refrigeration AC/R systems.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 2, NAVEDTRA 10662• UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing maintenance on air conditioning and refrigeration (AC/R) systems.

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General UT Skill Area	Construction Support
A skill you are expected to perform from the General Skill Area above:	Perform maintenance on compressor and compressed systems
Knowledge you should have to perform this skill:	Recall the requirements and procedures for performing maintenance on compressor and compressed systems.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures and methods used perform maintenance on compressor and compressed systems.

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General UT Skill Area	Construction Support
A skill you are expected to perform from the General Skill Area above:	Determine field sanitation requirements
Knowledge you should have to perform this skill:	Recall the procedures for determining field sanitation requirements.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures and methods used to determine field sanitation requirements.

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General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct and coordinate installation of advanced based functional component (ABFC) assemblies.
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the characteristics, uses, and procedures used in the erection of ABFC structures to include the following:</p> <ul style="list-style-type: none"> • Strong back tents • Seahuts • Field latrines • K-spans • Camps
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543, Chapter 4 • Facilities Planning Guide (all volumes), NAVFAC P-437
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedures for directing and coordinating installation of ABFC assemblies.

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General UT Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Install advanced base boilers and heat exchangers
Knowledge you should have to perform this skill:	Recall the requirements and procedures for the installation of advanced base boilers and heat exchangers.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 1, NAVEDTRA 10657-G1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for installing advanced base boilers and heat exchangers.

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General UT Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Perform maintenance on fire protection systems
Knowledge you should have to perform this skill:	Recall the requirements and procedures for performing maintenance on fire protection systems.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 1, NAVEDTRA 10657-G1• UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing maintenance on fire protection systems.

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General UT Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Perform maintenance on water treatment and test equipment
Knowledge you should have to perform this skill:	Recall the requirements and procedures for performing maintenance on water treatment and test equipment.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 1, NAVEDTRA 10657-G1• UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing maintenance on water treatment and test equipment.

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General UT Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Direct installation of compressed air systems
Knowledge you should have to perform this skill:	Recall the requirements and procedures for performing direct installation of compressed air systems.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 1, NAVEDTRA 10657-G1• UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for performing direct installation of compressed air systems.

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General UT Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Monitor compliance with environmental protection agency (EPA) standards
Knowledge you should have to perform this skill:	Recall the requirements and procedures for monitoring compliance with environmental protection agency (EPA) standards.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Environmental and Natural Resources Protection Manual, OPNAVINST 5090.1 series
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for monitoring compliance with environmental protection agency (EPA) standards.

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General UT Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Direct installation of fire protection systems
Knowledge you should have to perform this skill:	Recall the requirements and procedures for directing installation of fire protection systems.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT 1, NAVEDTRA 10657-G1• UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for directing installation of fire protection systems.

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General UT Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Direct installation of septic tanks and leaching field systems
Knowledge you should have to perform this skill:	Recall the requirements and procedures for directing installation of septic tanks and leaching field systems.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 1, NAVEDTRA 10657-G1 • UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for directing installation of septic tanks and leaching field systems.

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General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Prepare rough maps, field sketches, and overlays
Knowledge you should have to perform this skill:	<p>Recall procedures for the preparation and use of rough maps, field sketches, and overlays to include the following:</p> <ul style="list-style-type: none"> • Cover and concealment • Obstacles • Avenues of approach • Panoramic • Topographic • Overlay uses • Register marks
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the preparation and typical use of maps, field sketches, and overlays utilizing cover and concealment, showing obstacles and how to overcome them, avenues of approach, panoramic and topographic sketches and maps, and overlay requirements.

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General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform the duties as rifle squad leader
Knowledge you should have to perform this skill:	<p>Recall the duties and responsibilities of a rifle squad leader to include the following:</p> <ul style="list-style-type: none"> • Ideal squad composition • Discipline • Appearance • Training • Control • Squad conduct • Weapons • Equipment
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the rifle squad leader, the ideal number of personnel assigned, discipline, appearance, squad training, control, conduct, weapons, equipment, fire control, fire discipline, and squad movement.

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General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of the rifle platoon guide
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of the rifle platoon guide to include the following: <ul style="list-style-type: none">• Administration• Supply and timely re-supply• Casualty record
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the rifle platoon guide, administration, supply, timely re-supply, casualty reporting, and weapon assignment.

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General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of the rifle platoon petty officer
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of a rifle platoon petty officer to include the following: <ul style="list-style-type: none">• Assistant to the platoon commander• Squad position• Weapons qualification
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the rifle platoon petty officer, squad position, and weapons qualification. As assistant to the platoon commander he or she must also know the responsibilities of the platoon commander and act as platoon commander in his or her absence.

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General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of machine gun squad leader
Knowledge you should have to perform this skill:	<p>Recall the duties and responsibilities of the machine gun squad leader to include the following:</p> <ul style="list-style-type: none"> • Selection and assignment of positions and targets • Weapons qualification
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the machine gun squad leader.

Advancement Handbook for UT1

General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of antitank squad leader
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of the antitank squad leader to include the following: <ul style="list-style-type: none">• Basic duties• Selection and assignment of positions and targets• Weapons qualification• Other equipment
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the antitank squad leader, the basic duties, selection of and assignment of positions and targets, weapons qualification, and other assigned duties.

Advancement Handbook for UT1

General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of weapons platoon ammo technician/guide.
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of the weapons platoon ammo technician/guide
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the weapons platoon ammo technician/guide, weapons qualification, and other duties such as those described by the rifle platoon ammo technician/guide.

Advancement Handbook for UT1

General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of the weapons platoon petty officer
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of the weapons platoon petty officer.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the weapons platoon petty officer, weapons qualification, and other duties such as those described by the rifle platoon petty officer.

Advancement Handbook for UT1

General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Direct installation of protective and tactical wire entanglements
Knowledge you should have to perform this skill:	<p>Recall the requirements for placing protective and tactical wire entanglements to include the following:</p> <ul style="list-style-type: none"> • Uses • Construction • Types • Classification
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the installation of protective and tactical wire entanglements, their uses, construction, types, and classification.

Advancement Handbook for UT1

General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Instruct perimeter guards
Knowledge you should have to perform this skill:	<p>Recall the requirements and procedures for instructing perimeter guards to include the following:</p> <ul style="list-style-type: none"> • Fighting emplacements • Fields of Fire • Fire Distribution • Mission • Patrols • Enemy situation
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about maximum cover and concealment, constructing a defensive position, establishing dug-in emplacements, conducting observations, recognizing fields of fire, performing rifle fire and platoon firing, and determining the extent of target.

Advancement Handbook for UT1

General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Direct installation of trip flares and other warning devices
Knowledge you should have to perform this skill:	<p>Recall requirements for placement of trip flares and other warning devices to include the following:</p> <ul style="list-style-type: none"> • Grenades • Claymore mines • Trip flares • Booby traps • Explosive and nonexplosive devices • Countermeasures
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and uses for placing trip flares and other warning devices, such as grenades, claymore mines, booby traps, explosive and nonexplosive devices, and countermeasures.

Advancement Handbook for UT1

General UT Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Direct placement of aiming stakes
Knowledge you should have to perform this skill:	<p>Explain the purpose for the use of aiming stakes to include the following:</p> <ul style="list-style-type: none">• Limits• Night fire
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the proper uses of aiming stakes.

Advancement Handbook for UT1

General UT Skill Area	Heating and Air Conditioning Refrigeration Maintenance
A skill you are expected to perform from the General Skill Area above:	Adjust air conditioning/refrigeration (AC/R) expansion valves
Knowledge you should have to perform this skill:	Recall the requirements and procedures for adjusting air conditioning/refrigeration (AC/R) expansion valves.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for adjustment to air conditioning/refrigeration (AC/R) expansion valves.

Advancement Handbook for UT1

General UT Skill Area	Heating and Air Conditioning Refrigeration Maintenance
A skill you are expected to perform from the General Skill Area above:	Adjust air conditioning/refrigeration (AC/R) electrical controls
Knowledge you should have to perform this skill:	Recall the requirements and procedures for adjusting air conditioning/refrigeration (AC/R) electrical controls.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • UT 1, NAVEDTRA 10657-G1 • UT Advanced, NAVEDTRA 12534
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for adjusting air conditioning/refrigeration (AC/R) expansion electrical controls.

Advancement Handbook for UT1

General UT Skill Area	Planning and Estimating
A skill you are expected to perform from the General Skill Area above:	Prepare equipment/material estimates from drawings and specifications
Knowledge you should have to perform this skill:	Recall the requirements and procedures for preparing equipment/material estimates from drawings and specifications.
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Planner's and Estimator's Handbook, NAVFAC P-405 • Facilities Planning Guide, NAVFAC P-437, Volumes I and II
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for preparing equipment/materials estimates from drawings and specifications.

Advancement Handbook for UT1

General UT Skill Area	Planning and Estimation
A skill you are expected to perform from the General Skill Area above:	Prepare manpower estimates from drawings and specifications
Knowledge you should have to perform this skill:	<p>Recall the requirements and procedures for preparing manpower estimates from drawings and specifications to include the following:</p> <ul style="list-style-type: none"> • Material estimates • Equipment estimates • Labor estimates
References you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Planner's and Estimator's Handbook, NAVFAC P-405 • Facilities Planning Guide, NAVFAC P-437, Volumes I and II
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for preparing manpower estimates from drawings and specifications.

Part 4

Advancement Handbook for UTC

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General UT <i>Skill Area</i>	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Administer/utilize personnel readiness capability program (PRCP) data, determine training activities and work assignments
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures used to determine training requirements utilizing PRCP data to include the following:</p> <ul style="list-style-type: none"> • PRCP Program • PRCP Standards and Guides • Training guidelines • Training needs • Work assignments
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • PRCP, NAVFAC P-458, Volume II, Standards and Guides • NCF Manual, NAVFAC P-315, Chapter 5
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements, procedures, and utilization of PRCP data and training guidelines as determined by unit training requirements and work assignments based on construction tasking.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Manage utilities and energy conservation programs
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the requirements and techniques used to implement and control utilities and energy conservation programs to include the following:</p> <ul style="list-style-type: none"> • Identification • Prevention • Cleanup
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NFC/Seabee 1 & C, NAVEDTRA 12543 • Environmental and Natural Resources Program Manual, OPNAVINST 5090.1
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures and techniques used in the implementation and control of utility and energy conservation programs.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Organize and control deployment of materials and equipment
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures for organizing and controlling deployment of materials and equipment to include the following:</p> <ul style="list-style-type: none"> • Preconstruction conferences (PRECON) • Predeployment trip • Material liaison office (MLO) • Project status reports/project control reports (PSR/PCR)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Naval Construction Force Manual, NAVFAC P-315, Chapter 7
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures used to organize and control deployment of materials and equipment utilizing PRECONs, predeployment trip reports, the MLO staff, and PSRs/PCRs.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Technical Administration
<i>A skill</i> you are expected to perform from the General Skill Area above:	Monitor and adjust level I and II project progress charts
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures for preparing and maintaining Levels I and II project progress charts to include the following:</p> <ul style="list-style-type: none"> • Project planning • Man-day calculations • Man-day expenditures • Situation reports (SITREP's) • Completion percentages (actual versus plotted)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Seabee Planner's and Estimator's Handbook, NAVFAC P-405 • Seabee Crewleader's Handbook
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about preparation and maintenance of Levels I and II progress charts through correct project planning, calculating man-day requirements and expenditures, SITREP input, and completion percentages.

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General UT <i>Skill Area</i>	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review material requirements at company level
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures to monitor and maintain material requirements at company level.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Seabee Supply Manual, CBPAC/LANTINST 4400.3 series
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for reviewing, monitoring, and maintaining material requirements at company level.

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General UT <i>Skill Area</i>	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct organizational analysis
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for conducting an organizational analysis, interpretation, and usage of the results.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Organization and Functions for Public Works Department, NAVFAC P-318
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for conducting an organizational analysis and interpretation and usage of the results.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Coordinate and manage all construction tasks assigned to a company or detachment
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for coordinating and managing all construction tasks assigned to a company or detachment.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Organization and Functions for Public Works Department, NAVFAC P-318
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for coordinating and managing all construction tasks assigned to a company or detachment.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Coordinate and evaluate labor reporting data
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for coordinating and evaluating labor reporting data.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Organization and Functions for Public Works Department, NAVFAC P-318
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for coordinating and evaluating labor reporting data.

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General UT <i>Skill Area</i>	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Coordinate and evaluate maintenance data
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for coordinating and evaluating maintenance data.
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Organization and Functions for Public Works Department, NAVFAC P-318 • Maintenance Management Program for NCF Camps, COMCBPAC/LANTINST 11014.2 series
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for coordinating and evaluating maintenance data.

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General UT <i>Skill Area</i>	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Assist in the management and operations of a public works department
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the requirements and procedures to monitor and maintain work requests and orders to include the following:</p> <ul style="list-style-type: none"> • Customer requests • Inspection programs • Facility inventory • Service work (routine/emergency) • Minor works • Specific job orders • Standing job orders • Job order classification • Labor class codes
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Inspection of Shore Facilities, MO-322, Volume 1
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the generation of work requests and work orders through rigorous inspection programs, facility inventories, and work scheduling.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Recommend personnel and work assignments based on PRCP data analysis
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the requirements and procedures to recommend personnel and work assignments based on PRCP data analysis to include the following:</p> <ul style="list-style-type: none"> • Functional Skills • Equivalency skill levels • Required experiences • Time requirements • Defined requirements • NEC's • Standards and guides
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • Personnel Readiness Capability Program, NAVFAC P-458, Volume 1 and 2 • COMSECONDNCB/COMTHIRDNCB Instruction 1500.0 series
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the generation of work requests and work orders through rigorous inspection programs, facility inventories, and work scheduling.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Environmental Protection
<i>A skill</i> you are expected to perform from the General Skill Area above:	Manage environmental protection programs at naval construction force/public works (NCF/PW), construction sites, work areas, and shops
<i>Knowledge</i> you should have to perform this skill:	<p>Recall environmental protection programs used in the NCF and Public Works to include the following:</p> <ul style="list-style-type: none"> • Water and ground pollution • Air pollution • Hazardous waste • Warnings and labels • Material safety data sheets (MSDS) • Hazardous material storage and turn-in
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543 • NCF Occupational Safety and Health Program Manual, COM2NDNCB/COM3RDNCBINST 5100.1 series
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about management of environmental protection programs at PWD/NCF construction projects and work sites.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Coordinate and direct the turnover of projects, materials, and related equipment
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the tasks required to turn over and accept a Seabee camp from one battalion to another and describe the methods used in the tool management system to include the following:</p> <ul style="list-style-type: none"> • Predeployment trips and advance parties • Project turnover • Project status • Material status • WIP • Turnover conference • Tool, equipment, and material turn-in • As-built drawings • BOD • BEEP
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about turnover of Seabee camps and projects.

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General UT <i>Skill Area</i>	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Manage preparation of materials and equipment for embarkation
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures used in preparing material and equipment for embarkation to include the following:</p> <ul style="list-style-type: none"> • Contingency requirements • Mount-out • Embark planning • Pre-positioned stocks and supplies • Embarkation personnel • Training requirements • Mount-out control center (MOCC) • Air embarkation • Airlift requests • Hazardous cargo • CESE preparation • Cargo • Safety
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to embark battalion personnel, equipment, and material safely.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Manage construction projects using network analysis
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the procedures for managing projects by using network analysis to include the following:</p> <ul style="list-style-type: none"> • Sequence of work • Basic schedule (forward and backward pass) • Total float • Free float • Critical path • Logic types • Level III bar charts • Resource leveling
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about procedure and methods of project management utilizing network analysis.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct and coordinate installation of advanced based functional components (ABFC)
<i>Knowledge</i> you should have to perform this skill:	Recall the requirements and procedures for directing and coordinating the installation of ABFC systems to include the following: <ul style="list-style-type: none">• Components• Facilities• Assemblies
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none">• NCF/Seabee 1 & C, NAVEDTRA 12543
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures and requirements used to direct and coordinate the installation of ABFC systems and know about the use of different components, facilities, and assemblies.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Quality Assurance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Administer construction quality control programs
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the techniques used to administer construction quality control programs to include the following:</p> <ul style="list-style-type: none"> • Quality measures • Construction methods • Evaluations • ROICC interface • Preconstruction conferences • Inspections
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the techniques used to administer construction quality control programs.

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General UT <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of platoon commander
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the responsibilities and duties of a platoon commander to include the following:</p> <ul style="list-style-type: none"> • Rifle platoon commander • Weapons platoon commander • Mortar platoon commander • Coordinate operation in a company command post • Direct preparation of company defense plan • Coordinate operations in a command operation center (COC) • Assist in the preparation of battalion defense plans
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Seabee Combat Handbook, Volume 1, NAVEDTRA 12003 • Seabee Combat Handbook, Volume 2, NAVEDTRA 12004
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about responsibilities and duties of a platoon commander such as training, discipline, and control tactical deployment and in combat situations in the FDC.

Advancement Handbook for UTC

General UT <i>Skill Area</i>	Financial Control
A <i>skill</i> you are expected to perform from the General Skill Area above:	Implement facilities maintenance cost control programs
<i>Knowledge</i> you should have to perform this skill:	<p>Recall the requirements and procedures used in facilities cost control programs to include the following:</p> <ul style="list-style-type: none"> • Span of control • System elements • Organization and staffing • Public works department (PWD) • Work generation • Inspections • Work classification • Control and scheduling • Reports
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NCF/Seabee 1 & C, NAVEDTRA 12543
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about facilities cost control programs.

Appendix 1

References Used in This Advancement Handbook

Rating	Short Title	Long Title	Chapters/ Paragraphs	Stocking Point
UT3	NAVEDTRA 12532	Utilitiesman 3	N/A	Note 1
	NAVEDTRA 11019	UT Basic, Volume 1	N/A	Note 1
	NAVEDTRA 12014	Blueprint Reading and Sketching	Chapters 2 and 7	Note 1
	29CFR1926	Code of Federal Regulations	Subpart L	Note 2
	COMSECONDCOMTHIRDNBCBINST 3122.1 series	Embark Manual	Annex C and E	Note 4
	NAVEDTRA 10696-A	Engineering Aid Basic	N/A	Note 1
	NAVEDTRA 12535	Equipment Operator Basic	Chapters 6 and 14	Note 1
	NAVFAC P-437	Facilities Planning Guide	N/A	Note 5
	NAVEDTRA 12044	Military Requirements for PO3	Chapter 7	Note 1
	NAVEDTRA 12003	Seabee Combat Handbook, Volume 1	N/A	Note 1
	NAVFAC P-405	Seabee Planner's and Estimator's Handbook	N/A	Note 6
	CBPAC/LANTINST 4400.3 series	Seabee Supply Manual	N/A	Note 4
UT2	COMSECONDCONCB/COMTHIRDNBCBINST 5312.1 SERIES	Procedures for NMCB Timekeeping	N/A	Note 4
	NAVEDTRA 12004	Seabee Combat Handbook, Volume 2	N/A	Note 1
	NAVEDTRA 10662	Utilitiesman 2	N/A	Note 1
		Seabee Crewleader's Handbook	N/A	Note 7
	29CFR1926	Code of Federal Regulations	Subpart P, 1926.652, 703(b)	Note 2
	COMCBPAC/LANTINST 5200.2 series	Operations Officer Handbook	N/A	Note 4
UT1	COMCBPAC/LANTINST 11014.2 series	Maintenance Management Program for Naval Construction Force Camps	N/A	Note 4
	NAVFAC P-315	Naval Construction Force Manual	N/A	Note 7
	NAVEDTRA 12534	Utilitiesman Advanced	N/A	Note 1

	NAVEDTRA 10657-G1	Utilitiesman 1	N/A	Note 1
	NAVFAC MO-322	Inspection of Shore Facilities	N/A	Note 1
	NAVFAC P-458	Personnel Readiness Capability Program	Volume I and II	Note 5
	NAVFAC P-908	Oil Spill Control for Inland Waters and Harbors	N/A	Note 1
	NAVEDTRA 12543	NCF/Seabee 1&C	N/A	Note 1
	OPNAVINST 3501.115 series	Required Operational Capabilities, Projected Operational Environment	N/A	Note 3
	OPNAVINST 5090.1 series	Environmental and Natural Resources Protection Manual	N/A	Note 3
UTC	NAVFAC MO-321	Maintenance Management of Shore Facilities	N/A	Note 1
	NAVFAC P-318	Organization and Functions for Public Works Departments	N/A	Note 1

LEGEND:

Note 1 — To order, MILSTRIP to NAVICP PHILA (Stk. No. from
NAVSUP P2002) or
via INTERNET <http://www.nll.navsup.navy.mil>

Note 2 — INTERNET <http://law.house.gov/4.htm>

Note 3 — INTERNET <http://www.neds.nebt.daps.mil/>

Note 4 — Ltr request to: Commander
Second Naval Construction Brigade
1310 8th Street, Suite 100
Norfolk, VA 23521-2435

Note 5 — Ltr request to: Commander
Civil Engineer Support Office
CBC Bldg 1443
1000 23rd Avenue
Port Hueneme, CA 93043-5000

Note 6 — Ltr request to: Commanding Officer (Code 662)
Naval Construction Battalion Center
1000 23rd Avenue
Port Hueneme, CA 93043-4301

Note 7 — Ltr request to: Naval School
Civil Engineer Corps Officers
3502 Goodspeed Street, Suite 1
Port Hueneme, CA 93043-4336